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Q2(c)

Critically comment on the lifestyle diseases and their impact on human health.

UPSC Civil Services Mains 2024 · Anthropology GS 1 · 15 marks · Epidemiological Anthropology

9.8 Epidemiological Anthropology: Health and disease. Infectious and non-infectious diseases, Nutritional deficiency related diseases.

Core demand of the question

- Define lifestyle diseases and identify their major forms and mechanisms
- Critically assess the term through epidemiological and medical anthropology
- Explain impacts on persons, households, populations and health systems
- Use evolutionary, ethnographic and Indian examples

Revision summary

Lifestyle diseases include cardiovascular disease, type-2 diabetes, obesity, chronic respiratory disease and some cancers.

Omran describes **epidemiological transition**, but India often carries infectious and chronic burdens together.

Barker links early-life nutrition to adult risk; Neel's thrifty-genotype hypothesis is limited.

Popkin's **nutrition transition** and Singer's **syndemics** put behaviour inside social change.

Food markets, work, housing and care access constrain "choice".

Prevention requires structural policy, culturally informed care and individual risk reduction together.

Introduction

Lifestyle diseases are chronic non-communicable conditions whose risk is shaped by diet, physical activity, tobacco, alcohol, sleep and stress. The phrase is convenient but dangerous: it can convert constrained environments into individual "choices". Anthropology relocates behaviour inside evolution, culture, class and political economy.

Body

Pattern and mechanisms

Cardiovascular disease, type-2 diabetes, obesity, chronic respiratory disease and several cancers dominate the category. Energy-dense diets, tobacco, sedentary work, air pollution, hypertension and metabolic dysregulation interact with age and genetic susceptibility. **Abdel Omran's epidemiological transition** describes the population shift from infectious mortality toward chronic and degenerative disease, but many low- and middle-income populations face both simultaneously.

Evolutionary accounts propose mismatch between earlier environments and rapid urban-industrial change. **James Neel's "thrifty genotype"** was influential but is neither a proven single genotype nor an adequate explanation of population differences. **David Barker's developmental-origins hypothesis** is better supported: fetal and early-life undernutrition can alter later cardiometabolic risk. Biology therefore carries a life history.

Anthropological critique

- **Nutrition transition:** **Barry Popkin** describes shifts toward processed foods, fats and sugars alongside declining activity.
- **Ethnographic change:** Turkana moving from pastoral settings to towns experienced altered diet, activity and stress; such cases show transition, not a timeless ethnic predisposition.
- **Political economy:** Cheap ultra-processed food, unsafe walking space, long work hours, advertising and unequal preventive care structure behaviour. Tobacco or diabetes cannot be reduced to willpower.
- **Syndemics:** **Merrill Singer's** concept explains mutually reinforcing disease under inequality-for example diabetes with tuberculosis, depression or food insecurity.

In India, urbanisation and changing work coexist with persistent anaemia, undernutrition and infection. A low-birth-weight child may later encounter caloric abundance: the "**double burden**" can occur in one household. Tribal and migrant populations may face market displacement from traditional diets without gaining reliable care.

Impact

Chronic disease produces premature mortality, disability, renal and vascular complications, catastrophic household spending and long-term care burdens. Gendered caregiving and late diagnosis magnify effects. Prevention must combine tobacco control, food and urban policy, primary screening and culturally intelligible care-not only advice to exercise.

Flow diagram

Early-life biology -> NCD risk
Diet activity tobacco stress -> NCD risk
Markets work class urban form -> Diet activity tobacco stress
NCD risk -> Disability and household cost
Policy plus primary care -> Reduced risk and complications

Conclusion

Lifestyle matters, but lifestyles are socially produced. A critical account joins behaviour to developmental plasticity, commercial food systems, work and inequality. Effective prevention changes environments and care pathways as well as individual habits.

Facts & figures

Epidemiological transition

Omran described changing mortality from pestilence and famine toward chronic degenerative disease; overlapping burdens complicate the sequence.

Developmental origins

Barker's work links fetal and early-life environments to later cardiometabolic risk through developmental plasticity.

Nutrition transition

Popkin describes dietary and activity shifts associated with urbanisation, processed food systems and rising obesity and NCD risk.

Syndemics

Singer's framework studies interacting diseases whose co-occurrence and severity are intensified by adverse social conditions.

Double burden

Undernutrition and infection can coexist with obesity and diabetes within the same population, household or life course.

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